

**Notes on how to create a Box & Whisker plot**

Ex. 1 Odd number of Values

2, 3, 6, 8, 10, 12, 14

Step 1: Find the median (once the numbers are in order)

2, 3, 6, **8**, 10, 12, 14

*Since there is an odd # of values, we do not include the median when finding the Upper and Lower Quartiles.*

Step 2: Find the Lower Quartile (LQ). The lower quartile is the median of the 1<sup>st</sup> half of the data.

2, 3, 6, **8**, 10, 12, 14

Use these values to find the lower quartile: 2, **3**, 6

Lower Quartile = 3

Step 3: Find the Upper Quartile (UQ). The upper quartile is the median of the 2<sup>nd</sup> half of the data.

2, 3, 6, **8**, 10, 12, 14

Use these values to find the upper quartile: 10, **12**, 14

Upper Quartile = 12

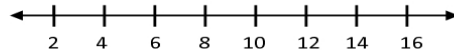
Step 3: Find the Interquartile Range (IQR).

Subtract the Lower Quartile from the Upper Quartile (UQ – LQ).

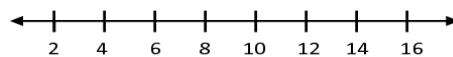
$12 - 3 = 9$

*Create the Box & Whisker Plot*

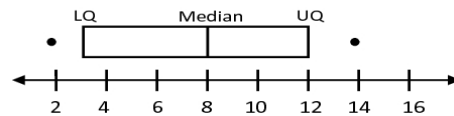
Step 1: Create a number line that represents the data.



Step 2: Mark your upper extreme (greatest #) and your lower extreme (least #) by marking a dot above the number line.



Step 3: Mark the Median, UQ, and LQ with a line to create a box.



Step 4: Draw the whiskers connecting the Box to the Upper and Lower Extremes.

